

### ABSTRACT OF THE DISCLOSURE

A temperature difference swimming pool comprises a pool filled with water, a plurality of water curtain controlling devices, and a temperature regulating system. The water curtain controlling devices are spaced apart and arranged at a bottom of the pool, each of the water curtain controlling devices includes two juxtaposed pipes, a series of intermittent holes is formed in a top surface of the pipes and located along the length thereof and is vertical to the water surface of the pool, the pipes each has a close end, and another end of the pipes is connected to a pump. Water is suctioned by the pump into one pipe via the holes thereof, and is then spurted out of the other pipe via the holes thereof, thus making the water circulates and forming a water curtain in the swimming pool. Since the water curtain stops the convection of the water in the pool, and the temperature regulating system is used to heat the water in one end of the swimming pool while cooling the water in the other end, thus forming a cold water region and a warm water region in one swimming pool.

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